



SZABO 201.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Andrew Szabo  
Serial No. : 09/400,649  
Filed : September 21, 1999  
For : NUTRITIONAL OPTIMIZATION SYSTEM AND METHOD  
Examiner : Samuel Rimell  
Group: 2175

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

April 13, 2006

**APPLICANTS' REPLY BRIEF UNDER 37 C.F.R. §41.41**

Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SIR:

In response to the Examiner's Answer dated February 13, 2006, Applicant herewith provides its Reply Brief:

## **1. STATUS OF CLAIMS**

All claims have been finally rejected.

## **2. GROUND FOR REJECTION TO BE REVIEWED ON APPEAL**

1. Whether claims 60 and 67-73 are properly rejected under 35 U.C.S. § 112, first paragraph, as failing to be supported by an enabling specification.
2. Whether claims 29-33, 35-50, 52-59, 61-66 and 74 are properly rejected under 35 U.C.S. § 102(e) as being anticipated by Mayaud (U.S. Patent 5,584,255).

### **3. ARGUMENT**

Without limiting the statements provided by Applicant in the Appeal Brief, Applicant responds to the Examiner's Answer on particular points as follows:

#### **I. THE EXAMINER HAS NOT MET HIS BURDEN OR PRESENTING A PRIMA FACIE CASE OF ANTICIPATION OF THE CLAIMS.**

It is the Examiner's burden to show anticipation of the claims. Only after the Examiner has presented a prima facie case, is Applicant required to overcome that rejection. The Examiner has ignored or dismissed critical elements of the claims, and, in the process, has failed to present credible evidence that the reference supplies the required teachings. Applicant is not required to respond to every citation to the record by the Examiner, where the claim language is clear and the reference speaks (or fails to speak) for itself.

Applicant's silence with respect to a citation to a passage or figure of the reference therefore does not represent acquiesce to the Examiner's assertions and rejections. The burden remains on the Examiner to establish a prima facie rejection showing an enabling disclosure within the four corners of the reference of each and every element of the claims, and weigh counter-arguments and evidence, in order to maintain the rejection of the claims.

Grouped claims, representing common issues, are argued together, and thus separate arguments are not made for such claims.

## II. THE SPECIFICATION DISCLOSES THAT THE OPTIMIZATION MAY INCLUDE AS A CRITERION A “LIKELIHOOD OF ADOPTION”

The Examiner maintains that the phrase “likelihood of adoption” is not disclosed within the specification as part of the optimization process. The specification states:

The proposal need not be limited to nutritional supplements, and therefore changes in diet, activity or exercise may also be included in the proposals. It is noted that great changes in diet, activity and exercise are difficult to effect, and therefore such proposals may be of limited benefit. In fact, since non-compliance rates are expected to be high, an optimization based on a proposal requiring distinct efforts is likely to be rejected or ignored. On the other hand, simple changes in diet, which are likely to be adopted, may be very efficacious. Thus, on a pragmatic basis, the proposal preferably emphasizes small dietary changes and a regimen of pills and/or supplements, even where an equivalent change might be possible through dietary modification.

\* \* \*

On one hand, a Japanese user would likely find comfort in a traditional Japanese health model, which in western medicine is considered “alternate”. On the other hand, an American medical practitioner using the nutritional supplement optimization system is unlikely to adopt substantial contributions from alternative medicine sources.

\* \* \*

At least one health model is provided which determines an optimum change in nutritional and health status for the user based on acceptable changes in diet or lifestyle. Included in these changes are nutritional supplements. This model comprises a large set of formulae which represent a health status of the user, as well as models of change in health status. Each health model includes efficacy modeling for a set of nutritional supplements, as well as interaction modeling for diet, nutritional supplements, pharmaceuticals, and other factors. Thus, in this case, the health, efficacy and interaction models are unified into a single model. The user must select a health model 27 from the available choices, or may optionally hybridize existing compatible models.

\* \* \*

In generating the proposed nutritional supplementation 29, it is noted that the various models may have global minima or maxima and local minima or maxima, and therefore known searching algorithms may be employed to select a preferred “operating point”, i.e., to optimize the proposal. Further, it is also noted that full compliance is rarely obtained, so that the models or the health optimization model may precompensate for an expected degree of non-compliance. This expected degree of non-compliance may be estimated, or based on subjective data or retrospective compliance data.

It is therefore respectfully submitted that the specification does indeed state that the optimization is one which produces a result which is “likely to be adopted”, and that this is a criterion of the optimization, and further that the optimization seeks to avoid proposals which a user is “unlikely to adopt.”

### **III. DRUG ALLERGIES, AS DESCRIBED IN MAYAUD, ARE NOT EQUIVALENT TO A “STATISTICAL RISK” AS SET FORTH IN THE CLAIMS**

The Examiner alleges that Mayaud discloses that the treatment of known drug allergies, and by this system and method a statistical risk is determined. However, there is no “statistical” treatment of this factor; that is, it is treated as a binary decision variable. “Statistical” is defined as: Definitions of **statistical** on the Web (<http://www.google.com/search?num=100&hl=en&lr=&safe=off&q=define%3Astatistical>):

- of or relating to statistics; "statistical population"  
[wordnet.princeton.edu/perl/webwn](http://wordnet.princeton.edu/perl/webwn)
- Statistics is the science and practice of developing knowledge through the use of empirical data expressed in quantitative form. It is based on statistical theory which is a branch of applied mathematics. Within statistical theory, randomness and uncertainty are modelled by probability theory. Because one aim of statistics is to produce the "best" information from available data, some authors consider statistics a branch of decision theory. ...  
[en.wikipedia.org/wiki/Statistical](http://en.wikipedia.org/wiki/Statistical)
- A measure of the degree of spread among a set of values; a measure of the tendency of individual values to vary from the mean value. It is computed by subtracting the mean value from each value, squaring each of these differences, summing these results and dividing this sum by the number of values in order to obtain the arithmetic mean of these squares. 003  
[appl.nasa.gov/resources/lexicon/terms\\_v.html](http://appl.nasa.gov/resources/lexicon/terms_v.html)
- Pertaining to or characterizing random phenomena, or referring to statistics.  
[amsglossary.allenpress.com/glossary/browse](http://amsglossary.allenpress.com/glossary/browse)
- maps use proportional symbols, pie charts, or histograms to visualize the quantitative aspects of the data. Typically, the statistical symbols are placed in each subdivision on the map, such as patrol areas, census tracts, neighborhoods, or wards. Such maps can be quite difficult to read if they contain a large amount of detail, particularly when many geographic subdivisions and several attributes of the information are being mapped. ...  
[www.ncirs.org/html/nii/mapping/ch1\\_12.html](http://www.ncirs.org/html/nii/mapping/ch1_12.html)
- Examining data to interpret meaning, make generalisations and extrapolate trends. Often the data come in graphical form and because these data are expressed in the language of mathematics, they should be evaluated and interpreted by means of appropriate mathematical or statistical procedures.  
[members.ozemail.com.au/~mghslib/subjects/society%20culture/Glossary.htm](http://members.ozemail.com.au/~mghslib/subjects/society%20culture/Glossary.htm)
- Is achieved when there is a low probability that the results of an experiment occurred by chance alone. In psychology it is conventional that results are said to be significant if the probability of their occurrence by chance is equal to or less than 5 per cent or 0.05  
[psy.st-andrews.ac.uk/resources/glossary.shtml](http://psy.st-andrews.ac.uk/resources/glossary.shtml)
- A collection and study of numerical data.  
[www.state.mi.us/msp/cjic/ucr/ucr\\_m.htm](http://www.state.mi.us/msp/cjic/ucr/ucr_m.htm)

Likewise, with respect to claim 31, Mayaud does not disclose a risk tolerance, since no degree of risk is assessed, and therefore no metric provided for determining a tolerance to that risk.

Even of the allergy is to be treated as a statistical risk factor, it is not presented in a jointly optimized fashion with the economic parameters. The rhetorical question unanswered by Mayaud, is how can we compare or merge economic information and allergy information? Both

the query itself, and any response, are both completely absent from Mayaud. The allergy information is an “orthogonal factor”, presented according to an independent paradigm from economic information, and no attempt is made to reconcile or relate these types of information.

It is further noted that claim 44, in contrast to claim 29, requires that the statistical risk related to both the set of records and the determined user relevance parameter. Even assuming arguendo that the Examiner’s rejection of claim 29 on this point is valid, this additional requirement is neither taught nor suggested by Mayaud.

Mayaud does not appear to present a sorted list having an order dependent on the determined economic parameters and the determined statistical risk, as required by claim 49. The Examiner addresses neither the issues of sorting nor ordering.

It is noted that, where the citation by the Examiner to an apparently irrelevant or clearly distinguished passage, no interpretation by applicant is required. By way of example, and without by way of limitation, the Examiner states that Col. 19, line 30 anticipates claim 62, which provides “The method according to claim 59 (an independent claim), further comprising the steps of providing a plurality of relevance profiles, and selecting a relevance profile to define a risk tolerance.” Col. 19, lines 17-34, reads as follows:

Patient features bar 40 comprises a Select Patient button 46, a selected patient indicator 48, in this case Mary Harrington, a patient Problems button 50 and a patient Allergies button 52. Beneath Problems button 50 are displayed Mary Harrington’s currently active problems 51 or conditions, shown here as pharyngitis and bronchitis. Beneath Allergies button 52 are displayed Mary Harrington’s known allergies. Pressing or otherwise activating Problems button 50 or Allergies button 52 access the remote database for the patient’s history and, opens a window or screen listing problems or allergies from which a physician, or other professional user, can select new problems or allergies to add to Mary Harrington’s record, or delete ones that are no longer active. **Optionally, system-provided problem or allergy libraries may be organized into multiple lists with button 50 or 52, respectively, opening a list selection box as a preliminary to displaying a selected problem or allergy list.**

There is not believed to be any disclosure that a selection of one of a plurality of “relevance profiles” (if met at all by these problem or allergy libraries), are selected to define a “risk tolerance”. Thus, the Examiner has apparently trivialized express claim language in order to shoehorn disparate disclosure to support an anticipation rejection.

#### IV. CLAIM 64

Claim 64: Claim 64 further comprises the steps of providing a client terminal having an interface for the user, providing a server for receiving information from the user and optimizing the presented records, and communicating between the client terminal and server over a computer network. While, in general, client-server computing systems are known, and indeed Mayaud discloses clients 201 and a server 206, the present claim describes that the optimization is performed at the server, thus distinguishing Mayaud, which does not provide any automated analysis or optimization based on a “statistical risk”. The Examiner infers, perhaps, that the doctor using the system may evaluate a risk of allergic reaction (this is not disclosed as a statistical process), but this manual analysis would be performed at, or in conjunction with, the client terminal, not the server.

#### CONCLUSION

It is therefore believed that the rejections of the Examiner should be reversed.

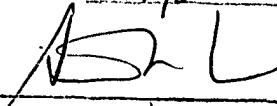
Respectfully submitted,



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By 

Date 4/13/06